



STATE OF WASHINGTON

DEPARTMENT OF AGRICULTURE

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Infectious Bursal Disease Fact Sheet

Introduction

Infectious bursal disease virus (IBDV), also known as Gumboro disease, is caused by a highly contagious virus that attacks a lymph node-like structure in young chickens called the bursa of Fabricius that is located inside the vent area. Death is most common in chickens that are 3 to 6 weeks of age; however, death has been reported in chickens up to about 10 weeks of age. Chickens that survive infection, may suffer suppression of the immune system.

History

Infectious bursal disease was first recognized in Gumboro, Delaware, 1957. During the late 1980s, very virulent infectious bursal disease (vvIBDV) was reported in England and the Netherlands; then vvIBDV was reported to spread to Africa, Asia and South America. In December 2008, very virulent infectious bursal disease virus (vvIBDV), was reported in California. This more severe form disease was first recognized in Washington State late in February, 2014.

What Animals Are Affected?

Chickens and turkeys are the natural hosts for IBDV. In California, vvIBDV has been identified in chickens.

How Do Chickens Become Infected?

Chickens infected with the IBDV and/or vvIBDV, shed the virus in the feces. Feed, water, equipment and poultry manure become contaminated. Chickens, less than 8 weeks of age, become infected by eating feed or water that has been contaminated with IBDV/vvIBDV. This virus is shed in the stool, but is not transmitted in the egg. Mature chickens that survived vvIBDV infection do not become carriers of the virus. IBDV and vvIBDV are not a risk for human health.

What are the Signs of Very Virulent Infectious Bursal Disease?

Chickens less than 8 weeks of age infected with vvIBDV may be depressed, have ruffled feathers, develop watery to blood stained stools and vents, become recumbent and can die. In California the death rate of egg-laying chickens ranges from 5 to 30%, but is lower in meat chickens (<1%).

How does the virus cause disease in chickens?

IBDV and vvIBDV attack the developing immune system in the young chickens. Damage to the bursa of Fabricius leaves surviving chickens less able to defend themselves against infections.

What changes are seen in chickens that die with IBDV and vvIBDV?

In chickens that die due to IBDV, the changes seen at dissection (post-mortem or necropsy) include swelling, reddening and hemorrhage of the bursa of Fabricius.

Is there a test to see if my chicken died due to IBDV and vvIBDV?

There is a laboratory test that can be done. If you suspect that your chicken has died of IBDV or vvIBDV you should work with your veterinarian to get your chicken submitted for testing.

Treatment

Unfortunately, there is no current treatment for IBDV or vvIBDV. No medications have been shown to reduce clinical signs or cure chickens infected with vvIBDV.

Vaccination

Veterinary supervision is required for successful vaccination to protect birds from vvIBDV.

How do I prevent my chickens from getting IBDV or vvIBDV?

Backyard chicken owners and people who show poultry should avoid purchasing chickens that had a history of diarrhea before 10 weeks of age. New birds should be kept in separate housing for 30 days before introducing them into your flock. During those 30 days of separation, make sure that boots and equipment used with the new birds are not used while taking care of the original flock.

Four disinfectants have been listed as effective against the IBD virus by the National Biosecurity Resource Center at Purdue University. Please work with your veterinarian to get the proper disinfectant.

Auction, Exhibits, Fairs, and Shows

Do not take chickens under 12 weeks of age with a history of diarrhea to auction, exhibits, fairs, or shows.

Disposal

It is important to dispose of chickens that die of IBDV and vvIBDV properly in order to prevent spreading this disease. Chickens that die due to IBDV or vvIBDV, should be incinerated or double bagged and disposed of in an outside garbage can. You should work with your veterinarian to make sure disposal of the chickens is appropriate for your farm.

Manure Management and Disposal

This type of virus survives very well in the environment and can persist on farms for months. Composting of the chicken manure may not inactivate IBDV, as the disease has recurred in barns that have been composted.

Internet Resources

Washington Department of Agriculture – Avian Health Program
<http://agr.wa.gov/FoodAnimal/AvianHealth/>

Avian Health and Food Safety Laboratory (a branch of WADDL)
http://www.vetmed.wsu.edu/depts_waddl/avian.aspx
Facebook: <https://www.facebook.com/AvianHealthFoodSafetyLaboratory>

Washington Disease Diagnostic Laboratory (WADDL, Washington State University)
http://www.vetmed.wsu.edu/depts_waddl/

National Biosecurity Resource Center, Disinfectants
<http://www.biosecuritycenter.org/disinfect.php>

USDA: Biosecurity for Poultry - Keeping Your Poultry Healthy
http://www.aphis.usda.gov/animal_health/birdbiosecurity/biosecurity/basicspoultry.htm

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